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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,112	01/24/2001	Jean-Michel Moutin	859063.490	5354

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SEED INTELLECTUAL PROPERTY LAW GROUP PLLC
701 FIFTH AVE
SUITE 6300
SEATTLE, WA 98104-7092

EXAMINER	
WONG, ALLEN C	

ART UNIT	PAPER NUMBER
2613	

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/770,112	MOUTIN, JEAN-MICHEL	
	Examiner	Art Unit	
	Allen Wong	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 2/8/05 have been fully read and considered but they are not persuasive.

Regarding lines 6-7 on page 7 of applicant's remarks, applicant states that Sun is not in the same field of endeavor as the present invention. The examiner respectfully disagrees. Sun's invention pertains to the decoding of MPEG sequential image data, ie. sequential images. Further, Sun's invention can be used for decoding a video stream in that the video stream is split into multiple video data sequences, as illustrated in fig.2 where multiple sequences of images (GOF) such as GOF1, GOF2, GOF3, etc., are decoded. Each GOF is a sequence of images or sequence of frames that are encoded to present moving image data for viewing at the decoding output. Thus, Sun's invention is pertinent to the discussion of this case.

Regarding lines 13-14 on page 7 of applicant's remarks, applicant asserts that the Sun's decoder does not prioritize high and low priority data. The examiner respectfully disagrees. After perusal of Sun's fig.8, HP (high priority) and LP (low priority) data are applied and processed to the decoding process of image data. Clearly, Sun uses the processing of the HP and LP data is used for prioritizing high and low priority data. Otherwise, what is the point of having distinctive priority data (HP and LP) if they are not being prioritized for decoding sequential image data? Thus, Sun's decoder discloses prioritize high and low priority data.

Regarding lines 20-21 on page 7 of applicant's remarks, applicant contends that Sun does not simultaneously decode a plurality of MPEG sequences. The examiner respectfully disagrees. Sun's invention pertains to the decoding of MPEG sequential images. Further, Sun's invention can be used for decoding a video stream in that the video stream is split into multiple video data sequences, as illustrated in fig.2 where multiple sequences of images (GOF) such as GOF1, GOF2, GOF3, etc., are decoded simultaneously. Each GOF is a sequence of images or sequence of frames that are encoded to present simultaneous moving image data for viewing at the decoding output. Thus, Sun does simultaneously decode a plurality of MPEG sequences.

Regarding line 27 on page of applicant's remarks, applicant states that Sun does not prioritize the received coded images. The examiner respectfully disagrees. Perusal of Sun's fig.8, the HP (high priority) and LP (low priority) data (as received by elements 60, 61 and 65 in that there is interactivity among these elements) are applied and processed to the decoding process of image data. Clearly, Sun uses the processing of the HP and LP data is used for prioritizing high and low priority data. Otherwise, what is the point of having distinctive priority data (HP and LP) if they are not being prioritized for decoding sequential image data? Thus, Sun's decoder discloses prioritize high and low priority data for prioritizing the received coded images.

Regarding line 26 on page 8 to line 2 on page 9 of applicant's remarks, applicant mentions that "a priority assignment circuit structured to, at each period, grant among the images a decoding priority to any of the images of the first type" as recited in claim 1 or "prioritizing the decoding commands by assigning to each decoding command a

priority level based on the image type of the coded image corresponding to the decoding command" as recited in claim 8. The examiner respectfully disagrees. After perusing Sun's fig.8, the HP (high priority) and LP (low priority) data (as received by elements 60, 61 and 65 in that there is interactivity among these elements) are applied and processed to the decoding process of image data. Clearly, Sun uses the processing of the HP and LP data is used for prioritizing high and low priority data. Sun does not specifically disclose the series of synchronizing periods, however, Oku's fig.11 teaches the use of horizontal and vertical synchronization periods with the display period. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Sun and Oku, as a whole, for efficiently and precisely decoding image data by minimized circuitry, memory and hardware requirements, as disclosed in Oku col.3, ln.25-48.

Regarding lines 5-7 on page 9 of applicant's remarks, applicant states that Oku does not discuss synchronization periods and that Oku does not teach, suggest or motivate assigning decoding priority levels to image sequences during a synchronization period, let alone priority assignments based on an image type. The examiner respectfully disagrees. After perusing Sun's fig.8, the HP (high priority) and LP (low priority) data (as received by elements 60, 61 and 65 in that there is interactivity among these elements) are applied and processed to the decoding process of image data. Clearly, Sun uses the processing of the HP and LP data is used for prioritizing high and low priority data. Sun does not specifically disclose the series of synchronizing periods, however, Oku's fig.11 teaches the use of horizontal and vertical

synchronization periods with the display period. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Sun and Oku, as a whole, for efficiently and precisely decoding image data by minimized circuitry, memory and hardware requirements, as disclosed in Oku col.3, ln.25-48.

Claims 2-7 and 9 are rejected for at least the same reasons as stated above.

Regarding lines 10-12 on page 9 of applicant's remarks, applicant asserts that Sun does not teach simultaneously decoding a plurality of MPEG sequences using a single decoder. The examiner respectfully disagrees. Sun's invention pertains to the decoding of MPEG sequential images. Further, Sun's invention can be used for decoding a video stream in that the video stream is split into multiple video data sequences, as illustrated in fig.2 where multiple sequences of images (GOF) such as GOF1, GOF2, GOF3, etc., are decoded simultaneously by a single decoder. Each GOF is a sequence of images or sequence of frames that are encoded to present simultaneous moving image data for viewing at the decoding output. Thus, Sun does simultaneously decode a plurality of MPEG sequences with a single decoder.

Regarding the new claims 18-23, claims 18-23 are rejected by Sun in view of Oku. See the rejection below and in the above remarks to applicant's arguments.

In conclusion, all of the broad limitations of the claims are met, and thus, the rejection is maintained.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 10 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Sun (5,455,629).

Regarding claims 10 and 17, Sun discloses a method for decoding a plurality of MPEG sequences simultaneously using a single MPEG decoder, comprising:

receiving first and second image sequences of coded images (fig.8, note image sequence data is received at element 65);

receiving a stream of decoding commands, each decoding command corresponding to a respective one of the coded images (col.12, ln.33-52 and fig.8, element 360 receives decoding commands and element 370 functions together with 360 for processing decoding commands of the image data);

prioritizing the coded images (fig.8, note elements 60, 61 and 65 receive the priority data of the coded image data);

decoding the coded images using the single MPEG decoder, thereby producing decoded images of first and second images sequences (fig.8, element 64 is the variable length decoder that decodes the image data sequences);

saving the decoded images (fig.8, element 66, 314 and 316 store decoded image data).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-9, 11-16 and 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun (5,455,629) in view of Oku (5,880,786).

Regarding claims 1, 8, 18-19 and 22-23, Sun discloses a device and method for prioritizing MPEG images to be decoded, comprising:

receiving first and second image sequences of coded images, each coded image having an image type that is one of a plurality of image types (fig.8, note image sequence data is received at element 65, and col.1, ln.26-28 disclose I, P and B images are plural image types of MPEG);

receiving a stream of decoding commands in a series of synchronizing periods, each decoding command corresponding to a respective one of the coded images (col.12, ln.33-52 and fig.8, element 360 receives decoding commands and element 370 functions together with 360 for processing decoding commands of the image data);

adding each decoding command to a priority list (fig.8, note elements 60, 61 and 65 receive the priority data of the coded image data);

prioritizing the decoding commands by assigning to each decoding command a priority level based on the image type of the coded image corresponding to the decoding command (col.8, ln.19-26, note decoding commands inputted from 370 are then relayed to the decompress controller 360 and then to element 64, where decoder state sequence or image type is sequenced or prioritized during decoding);

decoding the coded images in a priority order based on the priorities assigned to the coded images, thereby producing first and second images sequences of decoded images (fig.8, element 64 is the variable length decoder that decodes the image data sequences); and

displaying the first and second image sequences (fig.8, note image data is displayed at VIDEO OUT, where a video display RAM precedes the video output).

Although Sun does not specifically disclose the series of synchronizing periods, however, Oku teaches the use of synchronization periods (fig.11; note the use of horizontal and vertical synchronization signals with the display period). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Sun and Oku, as a whole, for efficiently and precisely decoding image data by minimized circuitry, memory and hardware requirements (Oku col.3, ln.25-48).

Regarding claims 2 and 20, Sun discloses wherein the decoder control circuit further includes a pointer memory for storing the beginning addresses of each of the images to be displayed (fig.8, element 370 and 360 are used to aid the storage of images to be displayed).

Regarding claim 3, Sun discloses wherein said decoder control circuit further includes a safety circuit for adding a predetermined header before each image provided to the decoder so that two images put end to end cannot form a code that causes a malfunction of the decoder (fig.2, note headers are inserted to differentiate image as seen in L3 where a picture type and header can be used, further, there are more headers that can be utilized to prevent decoder malfunctions).

Regarding claim 4, Sun discloses wherein the device includes the MPEG decoder, and the MPEG decoder is connected to the decoder control circuit (col.12, ln.15-17).

Regarding claim 5, Sun discloses further comprising:

a memory that stores coded data and decoded data (fig.8, element 316); a first bus that connects the decoder control circuit to the memory (fig.8, note connection between elements 360 and 316); a display control circuit connected between a screen and the first bus (fig.8, element 370 connected to user input and the video display RAM); and a microprocessor connected by a second bus to the decoder control circuit and the display control circuit (fig.8, note connections are interconnected between elements 306, 308, 360 and 370).

Regarding claims 6, 7, 15, 16 and 21, the examiner takes Official Notice because interlace and non-interlace or progressive images are typically used and well known in MPEG.

Regarding claims 9 and 14, Sun discloses prioritizing the decoding commands by assigning to each decoding command a priority level based on the image type of the coded image corresponding to the decoding command (col.8, ln.19-26, note decoding commands inputted from 370 are then relayed to the decompress controller 360 and then to element 64, where decoder state sequence or image type is sequenced or prioritized during decoding) and assigning a higher priority to the first image (fig.8, note HP is the higher priority and LP is the lower priority).

Sun does not specifically disclose the use of synchronizing periods, however, Oku teaches the use of synchronization periods (fig.11; note the use of horizontal and vertical synchronization signals with the display period). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Sun and Oku, as a whole, for efficiently and precisely decoding image data by minimized circuitry, memory and hardware requirements (Oku col.3, ln.25-48).

Regarding claims 11-13, Sun discloses prioritizing the decoding commands by assigning to each decoding command a priority level based on the image type of the coded image corresponding to the decoding command (col.8, ln.19-26, note decoding commands inputted from 370 are then relayed to the decompress controller 360 and then to element 64, where decoder state sequence or image type is sequenced or prioritized during decoding).

Sun does not specifically disclose the series of synchronizing periods, however, Oku teaches the use of synchronization periods (fig.11; note the use of horizontal and vertical synchronization signals with the display period). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Sun and Oku, as a whole, for efficiently and precisely decoding image data by minimized circuitry, memory and hardware requirements (Oku col.3, ln.25-48).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Allen Wong
Primary Examiner
Art Unit 2613

AW
6/13/05